

this case an atmospheric pipe from the silencer is not fitted, and the air is simply discharged from the end of the silencer, which consists of a steel pipe fitted with baffle bricks. The ashes pass along the pipes at considerable velocity, and, as might be expected, the wear on the pipes owing to sand-blast action is considerable. It is therefore necessary to carefully consider the design of the piping system so that the maximum life of the pipes may be obtained, and, at the same time, the replacement of worn pipes can be easily and quickly carried out.

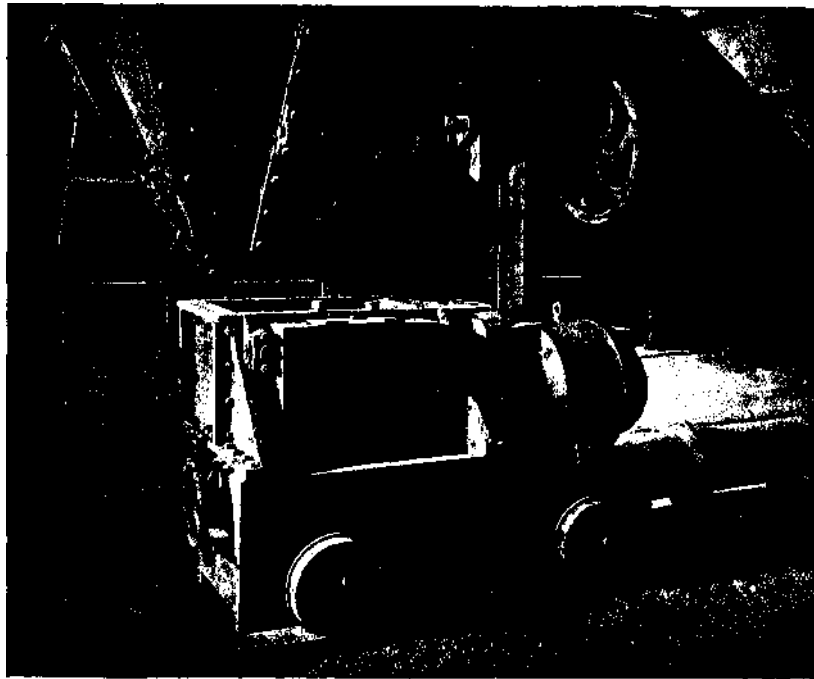


Fig. 23*—Babcox & Wilcox Patent Suction Ash Conveying Plant
View in ash tunnel, showing breaker and ash pipe

The wear on the pipes is, of course, most rapid at the bends, and therefore the general run of piping should be kept as straight as possible and all right-angle bends avoided.

In order to make the cost of replacements as low as possible, standard interchangeable pipes should be used; for example, all the straight pipes should be of one size and the different bends should be limited to two or three patterns, as by adopting this arrangement the provision of spare pipes is most easily arranged.

The pipes should be plain double spigot pipes of cast iron of considerable thickness, say $1\frac{1}{2}$ in. for the 10 in. internal diameter pipes, and the joints should consist of cast-iron double socket collars (Kimberley

collars) packed
with asbestos rope. The joints do not require heavily
caulking up, as, for